

Form PTO-1449  
(REV. 7-80)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

Atty. Docket No.  
11535Z

Serial No.  
09/646,807

**LIST OF PRIOR ART  
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Applicant

Michael Wayne Graham, et al.

Filing Date  
Dec. 5, 2000

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL*	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (if appropriate)
DS	5,714,323	2/3/98	Oshima, et al.			
DS	5,686,649	11/11/97	Chua, et al.			
DS	5,583,021	12/10/96	Dougherty, et al.			
DS	5,034,323	7/23/91	Jorgensen, et al.			
DS	5,231,020	7/27/93	Jorgensen, et al.			
DS	5,283,184	2/1/94	Jorgensen, et al.			

**FOREIGN PATENT DOCUMENTS**

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						YES	NO
DS	WO 99/32619	7/1/99	PCT				
DS	WO 95/10607	4/20/95	PCT				
DS	WO 98/44138	10/8/98	PCT				
DS	WO 96/08558	3/21/96	PCT				
DS	EP 0560156A2	9/15/93	EPO				
DS	WO 99/25853	5/27/99	PCT				
DS	EP 0242016	10/21/97	EPO				

**OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

DS	Fire, A., Xu, S.Q., Montgomery, M.K., Kostas, S.A., Driver, S.E. and Mello, C.C. (1998), "Potent and Specific Genetic Interference by Double-Standard RNA in <i>Caenorhabditis elegans</i> ". <i>Nature</i> , 391 (6669): 806-811
DS	Garrick, D., Fiering, S., Martin, D.I. and Whitelaw, E. (1998), "Repeat-Induced Gene Silencing in Mammals", <i>Nature Genetics</i> 18(1): 56-59
DS	Derer, D.R. and Henikoff, S. (1997) <del>Transgene Repeat Arrays Interact with Distant Heterochromatin and Cause Silencing in cis and trans</del> . <i>Genetics</i> 147(3)

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DS	WO 98/36083	8/20/98	PCT				
DS	WO 99/15682	4/1/99	PCT				
DS	WO 97/01952	1/23/97	PCT				
DS	WO 93/23551	11/25/93	PCT				
DS	WO 94/17194	8/4/94	PCT				
DS	WO 93/17098	9/2/93	PCT				
	<del>WO 98/53083</del>	<del>11/26/98</del>	<del>PCT</del>				

**OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

DS	Pal-Bhadra, M., Bhadra U. and Birchler, J.A. (1997) "Cosuppression in Drosophila: Gene Silencing of Alcohol Dehydrogenase by White-Adh Tarnsgenes is Polycomb Dependent". <u>Cell</u> 90(3): 385-387
DS	Bingham, P.M. (1997) "Cosuppression Comes to the Animals". <u>Cell</u> 90(3): 385-387
DS	Cameron, F.H. and Jennings, P.A. (1991) "Inhibition of Gene Expression by a Short Sense Fragment". <u>Nucleic Acids Research</u> 19(3): 469-475
DS	Engdahl, H.M., et al. (1997), "A Two Unit Antisense RNA Cassette Test System for Silencing of Target Genes", <u>Nucleic Acids Research</u> 25(16): 3218-3227
DS	Katsuki, M., et al. (1988), "Conversion of Normal Behavior to Shiverer by Myelin Basic Protein Antisense cDNA in Transgenic Mice", <u>Science</u> 241(4865): 593-595

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DS	Kook, Y.H., et al. (1994), "The Effect of Antisense Inhibition of Urokinase Receptor in Human Squamous Cell Carcinoma on Malignancy", <u>The EMBO Journal</u> 13(17): 3983-3991
DS	Lee, R.C., et al. (1993), The C. elegans Heterochronic Gene lin-4 Encodes Small RNAs with Antisense Complementarity to lin-14". <u>Cell</u> 75: 843-854
DS	Moroni, M.C., et al. (1992) EGF-R Antisense RNA Blocks Expression of the Epidermal Growth Factor Receptor and Suppresses the Transforming Phenotype of a Human Carcinoma Cell Line. <u>Journal of Biological Chemistry</u> 267(4): 2714-2722
DS	Nellen, W. and Lichtenstein C. (1993), "What Makes a Messenger RNA Anti-Sensitive?" <u>Trends in Biochemical Sciences</u> 18(11): 419-423
DS	Anderson, W.F. (1998), "Human Gene Therapy", <u>Nature</u> 392 (suppl.): 25-30

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DS	Kappel, C.A., et al. (1992), "Regulating Gene Expression in Transgenic Animals", <u>Current Opinion in Biotechnology</u> 3(5): 548-553
DS	Touchette, N. (1996), "Gene Therapy - Not Ready for Prime Time (News)", <u>Nature Medicine</u> 2(1): 7-8
DS	Verma, I.M., et al. (1997), "Gene Therapy - Promises, Problems and Prospects", <u>Nature</u> 389 (6648): 239-242
DS	Viville, S. (1997), "Mouse Genetic Manipulation Via Homologous Recombination" In 'Transgenic animals. Generation and Use'. Houdebine, L.M., ed. Harwood Academic Publishers, France 307-321
DS	Wall, R.J. (1996) "Transgenic Livestock: Progress and Prospects for the Future", <u>Theriogenology</u> 45(1): 57-68
DS	Angell, S.M., et al. (1997) "Consistent Gene Silencing in Transgenic Plants Expressing a Replicating Potato Virus X RNA", <u>The EMBO Journal</u> 16(12): 3675-3684

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	<del>Assaad, F.F., et al. (1993), "Epigenetic Repeat-Induced Gene Silencing (RIGS) in Arabidopsis. <u>Plant Molecular Biology</u> 22(6): 1067-1085</del>
<input checked="" type="checkbox"/>	Balandin, T., et al. (1997), "Silencing of a $\beta$ -1-3-glucanase Transgene is Overcome During Seed Formation", <u>Plant Molecular Biology</u> 34(1) 125-137
<input checked="" type="checkbox"/>	Baulcombe, D.C. (1996) RNA as a Target and an Initiator of Post-Transcriptional Gene Silencing in Transgenic Plants". <u>Plant Molecular Biology</u> 32(1-2): 79-88
<input checked="" type="checkbox"/>	Cogoni, C., et al. (1994), "Suppression of Gene Expression by Homologous Transgenes", <u>Antonie Van Leeuwenhoek</u> 65(3): 205-209
<input checked="" type="checkbox"/>	Cogoni, C., et al. (1996), "Transgene Silencing of the al-1 Gene in Vegetative Cells of Neurospora is Mediated by a Cytoplasmic Effector and Does not Depend on DNA-DNA Interactions or DNA Methylation", <u>The EMBO Journal</u> 15(12): 3153-3163
<input checked="" type="checkbox"/>	Cogoni, C., et al. (1997), "Isolations of Quelling-Defective (qde) Mutants Impaired in Posttranscriptional Transgene-Induced Gene Silencing in Neurospora Crassa". <u>Proceeding of the National Academy of Sciences of the United States of America</u> 94(19): 10233-10238

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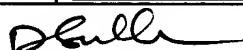
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CS	Courtney-Gutterson, et al. (1994), "Modification of Flower Color in Florist's Chrysanthemum: Production of White-flowering Variety Through Molecular Genetics", <u>Biotechnology</u> 12(3): 268-271
df	de Carvalho F., et al. (1992), "Suppression of $\beta$ -1,3-glucanase Transgene Expression in Homozygous Plants", <u>The EMBO Journal</u> 11(7): 2595-2602
df	de Carvalho Niebel, F. et al. (1995), "Post-transcriptional Cosuppression of $\beta$ -1,3-glucanase Genes Does Not Effect Accumulation of Transgene Nuclear mRNA", <u>The Plant Cell</u> 7(3): 347-358
df	De Lange, P., et al. (1995), "Suppression of Flavonoid Flower Pigmentation Genes in Petunia Hybrida by the Introduction of Antisense and Sense Genes", <u>Current Topics in Microbiology and Immunology</u> 197: 57-75

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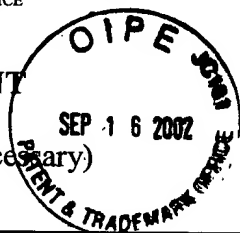
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DS	Depicker, A., et al. (1997), "Post-transcriptional Gene Silencing in Plants", <u>Current Opinion in Cell Biology</u> 9(3): 373-382
AS	English, J.J., et al. (1996), "Suppression of Virus Accumulation in Transgenic Plants Exhibiting Silencing of Nuclear Genes", <u>The Plant Cell</u> 8(2): 179-188
	<del>Hamilton, A.J., et al. (1998), "A Transgene with Repeated DNA Causes High Frequency, Post-Transcriptional Suppression of ACC-Oxidase Gene Expression in Tomato", <u>The Plant Journal</u> 15(6): 737-746</del>
DS	Jorgensen, R. (1990), "Altered Gene Expression in Plants Due to Trans Interactions Between Homologous Genes", <u>Trends in Biotechnology</u> 8(12): 340-344
DS	Jorgensen, R.A., et al. (1996), "Chalcone Synthase Cosuppression Phenotypes in Petunia Flowers: Comparison of Sense vs. Antisense Constructs and Single-Copy vs. Complex T-DNA Sequences", <u>Plant Molecular Biology</u> 31(5): 957-973

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PS	Knoester, M., et al. (1997), "Modulation of Stress-Inducible Ethylene Biosynthesis by Sense and Antisense Gene Expression in Tobacco", <u>Plant Science</u> <b>126</b> (2): 173-183
PS	Kunz, C., et al. (1996), "Developmentally Regulated Silencing and Reactivation of Tobacco Chitinase Transgene Expression", <u>The Plant Journal</u> <b>10</b> (3): 437-450
PS	Lee, K.Y., et al., (1997), "Post-transcriptional Gene Silencing of ACC Synthase in Tomato Results from Cytoplasmic RNA Degradation", <u>The Plant Journal</u> <b>12</b> (5): 1127-1137
PS	Lindbo, J.A., et al., (1993), "Induction of a Highly Specific Antiviral State in transgenic Plants - Implications for Regulation of Gene Expression and Virus Resistance", <u>The Plant Cell</u> <b>5</b> (12): 1749-1759
PS	Matzke, M.A., et al. (1998), "Epigenetic Silencing of Plant Transgenes as a Consequence of Diverse Cellular Defence Responses", <u>Cellular and Molecular Life Sciences</u> <b>54</b> (1): 94-103

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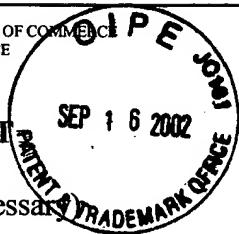
DS	Mueller, E., et al. (1995), "Homology-dependent Resistance – Transgenic Virus Resistance in Plants Related to Homology-Dependent Gene Silencing", <u>The Plant Journal</u> 7(6): 1001-1013
DS	Meyer, P. (1996), "Repeat-induced Gene Silencing –Common Mechanisms in Plants and Fungi", <u>Biological Chemistry Hoppe-Seyler</u> 377(2): 87-95
DS	Napoli, C., et al. (1990), "Introduction of a Chimeric Chalcone Synthase Gene into Petunia Results in Reversible So-Suppression of Homologous Genes in trans, <u>The Plant Cell</u> 2(4): 279-289
DS	Palauqui, J.C., et al. (1997), "Systemic Acquired Silencing: Transgene-specific Post-transcriptional Silencing is Transmitted by Grafting from Silenced Stocks to Non-silenced scions, <u>The EMBO Journal</u> 16: 4738-4745
DS	Pang, S.Z., et al. (1997), "Nontarget DNA Sequences Reduce the Transgene Length Necessary for RNA-mediated Tospovirus Resistance in Transgenic Plants", <u>Proceedings of the National Academy of Sciences of the United States of America</u> 94(15): 8261-8266
DS	Park, Y.D., et al. (1996), "Gene Silencing Mediated by Promotor Homology Occurs at the Level of Transcription and Results in Meiotically Heritable Alterations in Methylation and Gene Activity", <u>The Plant Journal</u> 9(2): 183-194

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	Que, Q., et al. (1998), "Homology-based Control of Gene Expression Patterns in Transgenic, <u>Petunia</u> Flowers", <u>Developmental Genetics</u> <b>22</b> (1): 100-109
DS	Romano, N., et al. (1992), "Quelling: Transient Inactivation of Gene Expression in <u>Neurospora Crassa</u> by Transformation with Homologous Sequences", <u>Molecular Microbiology</u> <b>6</b> (22): 3343-3353
DS	Sadiq, M., et al. (1994), "Developmental Regulation of Antisense-mediated Gene Silencing in <u>Dictyostelium</u> ", <u>Antisense Research &amp; Development</u> <b>4</b> (4): 263-267
	<del>Sijen, T., et al. (1996), "RNA-mediated Virus Resistance = Role of Repeated Transgenes and Delineation of Targeted Regions", <u>The Plant Cell</u> <b>8</b>(12): 2277-2294</del>
DS	Singer, M.J., et al. (1995), "Genetic and Epigenetic Inactivation of Repetitive Sequences in <u>Neurospora Crassa</u> : RIP, DNA Methylation, and Quelling", <u>Current Topics in Microbiology and Immunology</u> <b>197</b> : 165-177

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<i>DS</i>	Smyth, D.R. (1997), "Gene Silencing: Cosuppression at a Distance", <u>Current Biology</u> 7(12): R793-795
	<del>Stam, M., et al. (1997), "The Silence of Genes in Transgenic Plants", <u>Annals of Botany</u> 79(1): 9-12</del>
<i>DS</i>	Tanzer, M.M., et al. (1997), "Characterization of Post-Transcriptionally Suppressed Transgene Expression that Confers Resistance to Tobacco Etch Virus Infection in Tobacco", <u>The Plant Cell</u> 9(8): 1411-1423
<i>DS</i>	Van der Krol, et al. (1990), "Inhibition of Flower Pigmentation by Antisense CHS Genes: Promoter and Minimal Sequence Requirements for the Antisense Effect", <u>Plant Molecular Biology</u> 14(4): 457-466
<i>VS</i>	Van der Krol, et al. (1990), "Flavonoid Genes in Petunia: Addition of a Limited Number of Gene Copies May Lead to a Suppression of Gene Expression", <u>The Plant Cell</u> 2(4): 291-299
<i>DS</i>	Vacheret, H. Nussaume, et al. (1997), "A Transcriptionally Active State is Required for Post-Transcriptional Silencing (Cosuppression) of Nitrate Reductase Host Genes and Transgenes", <u>The Plant Cell</u> 9(8): 1495-1504

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DS	Liszewicz et al. (1993) "Inhibition of human immunodeficiency virus type 1 replication by regulated expression of a polymeric Tat activation response RNA decoy as a strategy for gene therapy in AIDS". <u>Proceedings of the National Academy of Sciences of the United States of America</u> <b>90</b> : 8000-8004
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Form PTO-1449 (REV. 7-80) PATENT AND TRADEMARK OFFICE	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Atty. Docket No. <b>11535Z</b>	Serial No. <b>09/646,807</b>
<b>LIST OF PRIOR ART CITED BY APPLICANT</b>  (Use several sheets if necessary)		Applicant <b>Michael Wayne Graham, et al.</b>	
		Filing Date <b>Dec. 5, 2000</b>	Group <b>Unassigned 1636</b>

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EXAMINER INITIAL*	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (if appropriate)

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	<del>Lindho, John et al., "Induction of a Highly Specific Antiviral State in Transgenic Plants: Implications for Regulation of Gene Expression and Virus Resistance", <u>The Plant Cell</u>, 5: 1749-1759 (1993)</del>
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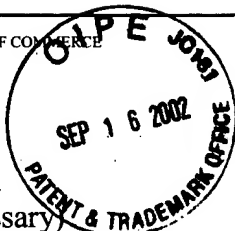
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**11535Z**Serial No.  
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**Michael Wayne Graham, et al.**Filing Date  
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**Unassigned 1636****U.S. PATENT DOCUMENTS**

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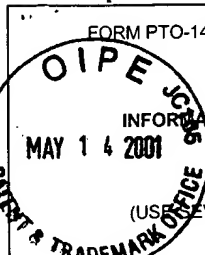
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		APPLICANT Graham et al.	FILING DATE December 5, 2000
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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
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